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**Listing of Claims**

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

Claim 1 (canceled).

2. (currently amended) The surface-emission laser diode as claimed in claim [[1]] 4, characterized in that at least a lower spacer layer and an upper spacer layer contains In.

3. (currently amended) The surface-emission laser diode as claimed in claim [[1]] 4, characterized in that, in said second lower reflector, said low refractive index layer and said high refractive index layer are repeated by 10 pairs or less.

4. (currently amended) [[The]]  $\Delta$  surface-emission laser diode ~~as claimed in claim 1,~~ characterized by:

a semiconductor substrate;

a cavity region formed over said semiconductor substrate, said cavity region comprising:  
an active layer structural part including at least one quantum well active layer producing a laser light and a barrier layer; and a spacer layer provided in a vicinity of said active layer structural part, said spacer layer comprising at least one material; and

an upper reflector and a lower reflector provided over said semiconductor substrate respectively at a top part and a bottom part of said cavity region,

said cavity region, said upper reflector and said lower reflector forming a mesa structure

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over said semiconductor substrate,

said upper reflector and said lower reflector constituting a semiconductor distributed Bragg reflector having a periodic change of refractive index and reflecting an incident light by interference of optical waves,

at least a part of said semiconductor distributed Bragg reflector being formed of a layer of small refractive index of  $\text{Al}_x\text{Ga}_{1-x}\text{As}$  ( $0 < x < 1$ ) and a layer of large refractive index of  $\text{Al}_y\text{Ga}_{1-y}\text{As}$  ( $0 < y < x < 1$ ),

said lower reflector being formed of a first lower reflector having a low-refractive index layer of AlAs and a second lower reflector formed on said first lower reflector, said second lower reflector having a low-refractive index layer of AlGaAs,

wherein any one layer constituting said cavity region contains In, and

~~in that~~ a part of said spacer layer comprises  $(\text{Al}_a\text{Ga}_{1-a})_b\text{In}_{1-b}\text{P}$  ( $0 < a \leq 1$ ,  $0 \leq b \leq 1$ ), said quantum well active layer comprises  $\text{Ga}_c\text{In}_{1-c}\text{P}_d\text{As}_{1-d}$  ( $0 \leq c \leq 1$ ,  $0 \leq d < 1$ ), and said barrier layer comprises  $\text{Ga}_e\text{In}_{1-e}\text{P}_f\text{As}_{1-f}$  ( $0 \leq e \leq 1$ ,  $0 \leq f \leq 1$ ).

5. (original) The surface-emission laser diode as claimed in claim 4, characterized in that said quantum well active layer has a compressive strain.

6. (original) The surface-emission laser diode as claimed in claim 5, characterized in that said barrier layer has a tensile strain.

7. (original) The surface-emission laser diode as claimed in claim 4, characterized in that said semiconductor substrate comprises a (100) GaAs substrate having a surface orientation

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inclined in a direction of a (111)A surface with an angle in a range of 5° to 20°.

8. (original) The surface-emission laser diode as claimed in claim 4, characterized in that said surface-emission laser diode has an oscillation wavelength of about 680nm or longer.

9. (original) The surface-emission laser diode as claimed in claim 5, characterized in that said semiconductor substrate comprises a (100) GaAs substrate having a surface orientation inclined in a direction of a (111)A surface by an angle in a range of 5° to 20°.

10. (original) The surface-emission laser diode as claimed in claim 5, characterized in that said surface-emission laser diode has an oscillation wavelength of about 680nm or longer.

Claims 11-35 (canceled).